09/998,551

00562063

FILE 'HOME' ENTERED AT 12:29:53 ON 01 DEC 2003

=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'BIOSIS' ENTERED AT 12:30:11 ON 01 DEC 2003 COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'MEDLINE' ENTERED AT 12:30:11 ON 01 DEC 2003

FILE 'CAPLUS' ENTERED AT 12:30:11 ON 01 DEC 2003
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FILE 'WPIDS' ENTERED AT 12:30:11 ON 01 DEC 2003 COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'USPATFULL' ENTERED AT 12:30:11 ON 01 DEC 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s (classif? or identif?) (6a) (species or taxon) and surface plasmon resonance and substrate and probes

1 FILES SEARCHED...

L1 758 (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) AND SURFACE PLASM ON RESONANCE AND SUBSTRATE AND PROBES

=> s l1 and hybridization

L2 746 L1 AND HYBRIDIZATION

=> dup rem 12

PROCESSING COMPLETED FOR L2

L3 744 DUP REM L2 (2 DUPLICATES REMOVED)

=> s (classif? or identif?) (3a) organisms (6a) (species or taxon) and surface
plasmon resonance and substrate and probes
 1 FILES SEARCHED...

L4 1 (CLASSIF? OR IDENTIF?) (3A) ORGANISMS (6A) (SPECIES OR TAXON)
AND SURFACE PLASMON RESONANCE AND SUBSTRATE AND PROBES

=> d 14 bib abs

L4 ANSWER 1 OF 1 USPATFULL on STN

AN 2003:71354 USPATFULL

TI Label-free detection of nucleic acids via surface plasmon resonance

IN Nelson, Bryce P., Madison, WI, UNITED STATES
Liles, Mark R., Madison, WI, UNITED STATES
Frederick, Kendra, Madison, WI, UNITED STATES
Corn, Robert M., Madison, WI, UNITED STATES
Goodman, Robert M., Madison, WI, UNITED STATES

PI US 2003049639 A1 20030313

AI US 2001-998551 A1 20011129 (9)

Continuation-in-part of Ser. No. US 1999-456038, filed on 3 Dec 1999, PENDING Division of Ser. No. US 1999-368991, filed on 5 Aug 1999, GRANTED, Pat. No. US 6127129

PRAI US 1999-132342P 19990504 (60)

LN.CNT 1301

DT Utility
FS APPLICATION
LREP DEWITT ROSS & STEVENS S.C., 8000 EXCELSIOR DR, SUITE 401, MADISON, WI, 53717-1914
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed is a method to detect unlabeled nucleic acids (DNA and/or RNA) in a taxa, species, and organelle-specific fashion using surface plasmon resonance (SPR) imaging. Taxa-specific, species-specific, or organelle-specific nucleic acids are affixed to an SPR-suitable substrate. A nucleic acid sample to be analyzed is then contacted with the SPR-substrate and the substrate analyzed to determine the presence or absence of specific hybridization between the nucleic acids bound to the substrate and the nucleic acids contained in the sample. The method does not require that either the bound nucleic acids nor the sample nucleic acids be labeled. The method can be used to identify the source of nucleic acids, their sequence, as well as to identify organisms and place them within a given taxonomic hierarchy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

START LOCAL KERMIT RECEIVE PROCESS KDJ!:&B&I&U@&h&h&C&g&F~'@0&#B#R@& #E#Z#C1.0&"&#B#R50&#B#R1&"&#B#R-0&#B#R)& #S0#Q&:#C#B#A#A&;#J0#H& #F#B#D#L3J&w&!#D&!#B%#@&"&#B#R#J0&#B#R#F& &#B#R#B0&#B#Q&#~& #S0#Q&;#C#B#A#A&!#J0#H& #F#B#D#L3J&w&!#H0#F& #D&!#B%#@&"&#B#Q&[0&#B#Q&W&##&#B#Q&S1&#B#Q&O0&#B#Q&K&<#C#B#A#A&!&#B#Q&1&!&#B#Q&-0&#B #Q&)& #S0#Q&=#C#B#A#A&!#J0#H& #F#B#D#L3J&w&"&#B#Q&#P0&#B#Q&#L& &#B#Q&#H0&#B#Q&#D&"&#B#K&S1&#B#K&O0z&9#C#B#A#A&"s& q0o& #C#Z#AC&!h0f&)0'&"%0##& #LO#J& #C#J#A#G&!#C#B#A#L&\$#C#J#A#A&4 O#^& #MO#K& #D#B#B&}&&!#C#B#A#@&!#MO#K& #D#B#B&z&)&!#C#B#A#@0z&9#C#B#A#B&"s& q0o& #C#Z#AO&!h0f&)0'&"%0##& #R& #P& #N& #L0#J& #C#J#A#C&!#C#B#A#B&!#M0#K& #I& #G0#E& #C#B#A#A&!#R& #P& #N& #L0#J& #C#J#A#C&!#C#B#A#P&\$#C#J#A#A&4 O#^& #MO#K& #D#B#B&}%&!#C#B#A#@&!#MO#K& #D#B#B&|<&!#C#B#A#@0&#A&#I&9#C#B#A#C&"&#A&#A& #?0}& #C#Z#AC&!V0t&)0'&"%0##& #R& #C#J#A#C&!#C#B#A#L&"#L0#J&?(#G0#E&"#C#J#A#A&\$#C#J#A#@&4 0#^& #M0#K& #D#B#B&#~&#B&!#C#B#A#@&!#M0#K& #D#B#B&y& &!#C#B#A#@0&#A&#I&9#C#B#A#D&"&#A&#A& #?0}& #C#Z#AC&!v0t&)0'&"%0##& #R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#D&!#M0#K& #I& #G0#E& #C#B#A#A&!#R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#L&"#LO#J&?(#G0#B&"#C#J#A#@&\$#C#J#A#@&4 0#^& #M0#K& #D#B#B&#~&u&!#C#B#A#@&!#M0#K& #D#B#B&xi&!#C#B#A#@0y&9#C#B#A#E&"r& p0n& #C#Z#AO&!g0e&)0'&"%0##& #R& #P& #N& #L0#J& #C#J#A#C&!#C#B#A#B&!#M0#K& #I& #G0#E& #C#B#A#@&!#R& #P& #N& #L0#J& #C#J#A#C&!#C#B#A#P&\$#C#J#A#@&4# 0#]& #L0#J& #C#B#A&M&!#C#B#A#@&!#M0#K& #D#B#B&z&T&!#C#B#A#@0z&9#C#B#A#F&"s& q0o& #C#Z#AC&!h0f&)O'&"%O##& #R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#D&!#MO#K& #I& #GO#E& #C#B#A#B&!#R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#L&\$#C#J#A#@&4 O#^& #MO#K& #D#B#B#@&#H&!#C#B#A#@&!#M0#K& #D#B#B&xi&!#C#B#A#@0z&9#C#B#A#G&"s& q0o& #C#Z#AN&!hOf&)0'&"%0##& #R& #P& #N& #L0#J& #C#J#A#C&!#C#B#A#C&!#M0#K& #I& #G0#E& #C#B#A#@&!#R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#N&\$#C#J#A#@&4 0#^& #M0#K& #D#B#B&}&#X&!#C#B#A#@&!#M0#K& #D#B#B&w& &!#C#B#A#@0&#A&#I&9#C#B#A#H&"&#A&#A& #?0}& #C#Z#AC&!vot&)0'&"%0##& #R& #P& #N& #L0#J& #C#J#A#C&!#C#B#A#D&!#M0#K& #I& #G0#E& #C#B#A#A&!#R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#L&"#L0#J&?(#G0#E&"#C#J#A#A&\$#C#J#A#@&4 0#^& #M0#K& #D#B#B#A#I&!#C#B#A#@&!#M0#K& #D#B#B&y& &!#C#B#A#@0z&9#C#B#A#I&"s& q0o& #C#Z#AC&!hOf&)0'&"%0##& #R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#D&!#M0#K& #I& #G0#E& #C#B#A#@&!#R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#L&\$#C#J#A#@&4 O#^& #MO#K& #D#B#B&|;&!#C#B#A#@&!#M0#K& #D#B#B&xi&!#C#B#A#@0z&9#C#B#A#J&"s& q0o& #C#Z#AC&!h0f&)O'&"%O##& #R& #P& #N& #LO#J& #C#J#A#A&!#C#B#A#D&!#MO#K& #I& #GO#E& #C#B#A#A&!#R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#L&\$#C#J#A#@&4 O#^& #MO#K& #D#B#B&}&|&!#C#B#A#@&!#M0#K& #D#B#B&V#M&!#C#B#A#@0z&9#C#B#A#K&"s& q0o& #C#Z#AN&!hof&)0'&"%0##& #R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#C&!#M0#K& #I& #G0#E&

#C#B#A#@&!#R& #P& #N& #LO#J& #C#J#A#C&!#C#B#A#N&\$#C#J#A#@&4 O#^& #MO#K&

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     01 DEC 2003
L1
            758 S (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) AND SURFACE PL
L2
            746 S L1 AND HYBRIDIZATION
L3
            744 DUP REM L2 (2 DUPLICATES REMOVED)
T.4
              1 S (CLASSIF? OR IDENTIF?) (3A) ORGANISMS (6A) (SPECIES OR TAXON)
=> s (classif? or identif?) (6a) (species or taxon) and surface plasmon resonance
 (3a) substrate and probes
   1 FILES SEARCHED...
L_5
             2 (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) AND SURFACE PLASM
               ON RESONANCE (3A) SUBSTRATE AND PROBES
=> s 15 not 14
             1 L5 NOT L4
=> d 16 bib abs
     ANSWER 1 OF 1 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
L6
AΝ
     2003-765369 [72]
                        WPIDS
     2000-655617 [63]; 2002-507229 [54]; 2003-625404 [59]
CR
DNN N2003-613042
                        DNC C2003-210037
     Identification or classification of organism on
TI
     species-specific or taxon-specific level, by contacting
     substrate with sample containing target nucleic acids, and analyzing the
     substrate by surface plasmon resonance
DC.
     B04 D16 S03
IN
     CORN, R M; FREDERICK, K; GOODMAN, R M; LILES, M R; NELSON, B P; FREDERICK,
     (CORN-I) CORN R M; (FRED-I) FREDERICK K; (GOOD-I) GOODMAN R M; (LILE-I)
PA
     LILES M R; (NELS-I) NELSON B P; (WISC) WISCONSIN ALUMNI RES FOUND
CYC
     US 2003049639 A1 20030313 (200372)*
PΤ
                                              20p
     WO 2003048723 A2 20030612 (200372) EN
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            MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
            DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
            KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
            RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA
            ZM ZW
ADT US 2003049639 A1 Provisional US 1999-132342P 19990504, Div ex US
     1999-368991 19990805, CIP of US 1999-456038 19991203, US 2001-998551
     20011129; WO 2003048723 A2 WO 2002-US37362 20021121
FDT US 2003049639 Al Div ex US 6127129
PRAI US 1999-132342P 19990504; US 1999-368991 19990805; US 1999-456038
     19991203; US 2001-998551
                                20011129
     2003-765369 [72]
ΑN
                        WPIDS
     2000-655617 [63]; 2002-507229 [54]; 2003-625404 [59]
CR
AΒ
     US2003049639 A UPAB: 20031107
     NOVELTY - Organism on species-specific or taxon
     -specific level is identified or classified by
     contacting substrate with a sample known to or suspected of containing
     target nucleic acids from an organism to be identified or classified for
     sequence-specific hybridization, and analyzing the substrate by
```

surface plasmon resonance.

DETAILED DESCRIPTION - Identification or classification of organism on species-specific or taxon-specific level, involves providing a surface plasmon resonance-capable substrate having immobilized species- or taxon-specific nucleic acid probes, contacting the substrate with a sample known to or suspected of containing target nucleic acids from an organism to be identified or classified for sequence-specific hybridization to occur between target nucleic acids present in the sample and the nucleic acid probes, and analyzing the substrate by surface plasmon resonance, where the sequence-specific hybridization between the

target nucleic acid in the sample and the nucleic acid probes is detected.

USE - For identifying or classifying organism on species-specific or taxon-specific level.

ADVANTAGE - The invention can be used to probe many nucleic acid samples in a very short time without requiring any labeling of the target or probe nucleic acid using a recyclable substrate that can be used at least 50 times without signal degradation. It offers the simplicity of direct isolation and hybridization of nucleic acid samples to species-specific and/or taxon-specific nucleic acid probes. It is highly automatable and can be implemented using high-throughput laboratory robots. The washing removes any nucleic acids hybridized to the array without removing any of the immobilized nucleic acid probes that define the array itself.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic representation of surface plasmon resonance apparatus. Dwg.1/3

=> s (classif? or identif?) (6a) (species or taxon) and surface plasmon resonance and substrate and probes and organism? 1 FILES SEARCHED...

751 (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) AND SURFACE PLASM L7ON RESONANCE AND SUBSTRATE AND PROBES AND ORGANISM?

=> s 17 and immobili? (5a) probes 253 L7 AND IMMOBILI? (5A) PROBES Ъ8

=> s 18 and target 252 L8 AND TARGET

=> s 19 and hybridization 252 L9 AND HYBRIDIZATION L10

=> s 110 and array 251 L10 AND ARRAY L11

=> s l11 and rna L12 250 L11 AND RNA

≈> s 112 and dna 250 L12 AND DNA

=> s 113 and ribosom? 32 L13 AND RIBOSOM?

=> s 114 and imaging 31 L14 AND IMAGING

=> s 115 and fragment?

L16 31 L15 AND FRAGMENT? => s l16 and heat? 19 L16 AND HEAT? => s l17 and gene expression 3 FILES SEARCHED... 18 L17 AND GENE EXPRESSION => s l18 and alkanethiol? L19 1 L18 AND ALKANETHIOL? => d l19 bib abs ANSWER 1 OF 1 USPATFULL on STN 2003:71354 USPATFULL ANTILabel-free detection of nucleic acids via surface plasmon resonance Nelson, Bryce P., Madison, WI, UNITED STATES IN Liles, Mark R., Madison, WI, UNITED STATES Frederick, Kendra, Madison, WI, UNITED STATES Corn, Robert M., Madison, WI, UNITED STATES Goodman, Robert M., Madison, WI, UNITED STATES PΙ US 2003049639 A120030313 US 2001-998551 20011129 (9) ΑI Α1 Continuation-in-part of Ser. No. US 1999-456038, filed on 3 Dec 1999, RLI PENDING Division of Ser. No. US 1999-368991, filed on 5 Aug 1999, GRANTED, Pat. No. US 6127129 US 1999-132342P 19990504 (60) PRAI DT Utility FS APPLICATION DEWITT ROSS & STEVENS S.C., 8000 EXCELSIOR DR, SUITE 401, MADISON, WI, LREP 53717-1914 CLMN Number of Claims: 27 Exemplary Claim: 1 ECL 4 Drawing Page(s) DRWN LN.CNT 1301 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Disclosed is a method to detect unlabeled nucleic acids (DNA AΒ and/or RNA) in a taxa, species, and organelle-specific fashion using surface plasmon resonance (SPR) imaging. Taxa-specific, species-specific, or organelle-specific nucleic acids are affixed to an SPR-suitable substrate. A nucleic acid sample to be analyzed is then contacted with the SPRsubstrate and the substrate analyzed to determine the presence or absence of specific hybridization between the nucleic acids bound to the substrate and the nucleic acids contained in the sample. The method does not require that either the bound nucleic acids nor the sample nucleic acids be labeled. The method can be used to identify the source of nucleic acids, their sequence, as well as to identify organisms and place them within a given taxonomic hierarchy. CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> dup rem 120
PROCESSING COMPLETED FOR L20
L21 17 DUP REM L20 (0 DUPLICATES REMOVED)

17 L18 NOT L19

=> s l18 not l19

L20

FS

APPLICATION

```
=> d 121 bib abs 1-17
 L21 ANSWER 1 OF 17 USPATFULL on STN
 AN
        2003:312153 USPATFULL
        Schizophrenia associated genes, proteins and biallelic markers
 ΤI
 IN
        Cohen, Daniel, Paris, FRANCE
        Blumenfeld, Marta, Paris, FRANCE
        Chumakov, Ilya, Vaux-le-Penil, FRANCE
        Bougueleret, Lydie, Petit Lancy, SWITZERLAND
        Bihain, Bernard, Cancale, FRANCE
        Essioux, Laurent, Paris, FRANCE
       GENSET, S.A., Paris, FRANCE (non-U.S. corporation)
PA
PΙ
       US 2003219750
                           Α1
                                20031127
       US 2002-147603
AΙ
                           A1
                                20020516 (10)
       Division of Ser. No. US 2000-539333, filed on 30 Mar 2000, GRANTED, Pat.
RLT
       No. US 6476208 Continuation-in-part of Ser. No. US 1999-416384, filed on
       12 Oct 1999, PENDING
       US 1999-126903P
PRAI
                           19990330 (60)
       US 1999-131971P
                           19990430 (60)
       US 1999-132065P
                           19990430 (60)
       US 1999-143928P
                           19990714 (60)
       US 1999-145915P
                           19990727 (60)
       US 1999-146453P
                           19990729 (60)
       US 1999-146452P
                           19990729 (60)
       US 1999-162288P
                           19991028 (60)
DT
       Utility
FS
       APPLICATION
       SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W.
TIREP
       41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669
CLMN
       Number of Claims: 50
ECL
       Exemplary Claim: 1
DRWN
       22 Drawing Page(s)
LN.CNT 12578
AΒ
       The invention concerns the human sbg1, g34665, sbg2, g35017 and g35018
       genes, polynucleotides, polypeptides biallelic markers, and human
       chromosome 13q31-q33 biallelic markers. The invention also concerns the
       association established between schizophrenia and bipolar disorder and
       the biallelic markers and the sbg1, g34665, sbg2, g35017 and g35018
       genes and nucleotide sequences. The invention provides means to identify
       compounds useful in the treatment of schizophrenia, bipolar disorder and
       related diseases, means to determine the predisposition of individuals
       to said disease as well as means for the disease diagnosis and
       prognosis.
L21 ANSWER 2 OF 17 USPATFULL on STN
AN
       2003:282611 USPATFULL
       Human cDNAs and proteins and uses thereof
TI
       Bejanin, Stephane, Paris, FRANCE
IN
       Tanaka, Hiroaki, Antony, FRANCE
PA
       GENSET, S.A., Paris, FRANCE (non-U.S. corporation)
PΙ
       US 2003198954
                               20031023
                          Α1
ΑI
       US 2001-1142
                          A1
                               20011114 (10)
       Division of Ser. No. US 2001-924340, filed on 6 Aug 2001, PENDING
RLI
PRAI
       WO 2001-IB1715
                           20010806
       US 2001-305456P
                           20010713 (60)
       US 2001-302277P
                           20010629 (60)
       US 2001-298698P
                           20010615 (60)
       US 2001-293574P
                           20010525 (60)
DT
       Utility
```

LREP

```
LREP
        SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W.
        41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669
 CLMN
       Number of Claims: 13
 ECL
       Exemplary Claim: 1
        4 Drawing Page(s)
 DRWN
 LN.CNT 25681
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
       treatment of GENSET-related disorders.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 3 OF 17 USPATFULL on STN
MΑ
       2003:276679 USPATFULL
ΤI
       Human genome-derived single exon nucleic acid probes useful
       for gene expression analysis two
TN
       Penn, Sharron Gaynor, San Mateo, CA, UNITED STATES
       Rank, David Russell, Fremont, CA, UNITED STATES
       Hanzel, David Kagen, Palo Alto, CA, UNITED STATES
PΙ
       US 2003194704 A1
                               20031016
ΑI
       US 2002-29386
                          A1
                               20020403 (10)
DT
       Utility
FS
       APPLICATION
LREP
       AMERSHAM BIOSCIENCES, PATENT DEPARTMENT, 800 CENTENNIAL AVENUE,
       PISCATAWAY, NJ, 08855
CLMN
       Number of Claims: 53
ECL
       Exemplary Claim: 1
DRWN
       10 Drawing Page(s)
LN.CNT 7357
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods and apparatus for predicting, confirming and displaying
AB
       functional regions from genomic sequence data are used to identify
       13,700 unique human genome-derived single exon probes useful
       for gene expression analysis, particularly
       gene expression analysis by microarray. Also presented
       are genome-derived single exon microarrays that include such
       probes, peptides encoded by the exons, and antibodies thereto.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 4 OF 17 USPATFULL on STN
       2003:244219 USPATFULL
AN
ΤI
       Human cDNAs and proteins and uses thereof
       Bejanin, Stephane, Paris, FRANCE
IN
       Tanaka, Hiroaki, Antony, FRANCE
PA
       GENSET, S.A., Paris, FRANCE (non-U.S. corporation)
PΙ
       US 2003170628
                         A1
                               20030911
       US 2001-999570
ΑI
                          A1
                               20011114 (9)
      Division of Ser. No. US 2001-924340, filed on 6 Aug 2001, PENDING
RLI
      WO 2001-IB1715
PRAI
                           20010806
      US 2001-305456P
                           20010713 (60)
      US 2001-302277P
                           20010629 (60)
       US 2001-298698P
                           20010615 (60)
      US 2001-293574P
                           20010525 (60)
      Utility
DT
      APPLICATION
FS
```

SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W.

```
41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669
 CLMN
        Number of Claims: 13
 ECL
        Exemplary Claim: 1
 DRWN
        4 Drawing Page(s)
 LN.CNT 25549
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
        The invention concerns GENSET polynucleotides and polypeptides. Such
        GENSET products may be used as reagents in forensic analyses, as
        chromosome markers, as tissue/cell/organelle-specific markers, in the
        production of expression vectors. In addition, they may be used in
        screening and diagnosis assays for abnormal GENSET expression and/or
        biological activity and for screening compounds that may be used in the
        treatment of GENSET-related disorders.
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 5 OF 17 USPATFULL on STN
AN
       2003:231986 USPATFULL
ΤI
       Human cDNAs and proteins and uses thereof
IN
       Bejanin, Stephane, Paris, FRANCE
       Tanaka, Hiroaki, Antony, FRANCE
PA
       GENSET, S.A., Paris, FRANCE (non-U.S. corporation)
PΤ
       US 2003162186
                        A1
                                20030828
ΑI
       US 2002-154678
                               20020522 (10)
                         A1
PRAI
       US 2001-293574P
                          20010525 (60)
       US 2001-298698P
                          20010615 (60)
       US 2001-302277P
                          20010629 (60)
       US 2001-305456P
                          20010713 (60)
DT
       Utility
FS
       APPLICATION
       SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W.
LREP
       41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669
CLMN
       Number of Claims: 13
ECL
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 25533
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
AB
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
       treatment of GENSET-related disorders.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 6 OF 17 USPATFULL on STN
AN
       2003:225673 USPATFULL
ΤI
       Human cDNAs and proteins and uses thereof
IN
       Bejanin, Stephane, Paris, FRANCE
       Tanaka, Hiroaki, Antony, FRANCE
PA
       GENSET, S.A., Paris, FRANCE (non-U.S. corporation)
PΙ
       US 2003157485
                         A1
                               20030821
       US 2001-992095
ΑI
                         A1
                               20011113 (9)
      Division of Ser. No. US 2001-924340, filed on 6 Aug 2001, PENDING
RLI
PRAI
       WO 2001-IB1715
                           20010806
       US 2001-305456P
                           20010713 (60)
       US 2001-302277P
                           20010629 (60)
      US 2001-298698P
US 2001-293574P
                           20010615 (60)
                           20010525 (60)
DT
       Utility
```

APPLICATION

```
SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W.
 LREP
       41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669
       Number of Claims: 13
CLMN
ECL
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 25484
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
       treatment of GENSET-related disorders.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 7 OF 17 USPATFULL on STN
AN
       2003:219631 USPATFULL
TΙ
       Full-length human cDNAs encoding potentially secreted proteins
TN
       Dumas Milne Edwards, Jean-Baptiste, Paris, FRANCE
       Bougueleret, Lydie, Petit Lancy, SWITZERLAND
       Jobert, Severin, Paris, FRANCE
PI
       US 2003152921
                          A1
                               20030814
ΑI
       US 2001-876997
                               20010608 (9)
                         A1
       Continuation-in-part of Ser. No. US 2000-731872, filed on 7 Dec 2000,
RLI
       PENDING
PRAI
       US 1999-169629P
                          19991208 (60)
       US 2000-187470P
                          20000306 (60)
DT
       Utility
FS
       APPLICATION
LREP
       Frank C. Eisenschenk, Ph.D., SALIWANCHIK, LLOYD & SALIWANCHIK, 2421 N.W.
       41 STREET, SUITE A-1, GAINESVILLE, FL, 32606-6669
CLMN
       Number of Claims: 22
ECL
       Exemplary Claim: 1
DRWN
       5 Drawing Page(s)
LN.CNT 27600
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
       treatment of GENSET-related disorders.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 8 OF 17 USPATFULL on STN
       2003:140406 USPATFULL
AN
TI
       Human cDNAs and proteins and uses thereof
ΙN
       Bejanin, Stephane, Paris, FRANCE
       Tanaka, Hiroaki, Antony, FRANCE
       GENSET, S.A., Paris, FRANCE, 75008 (non-U.S. corporation)
PA
      US 2003096247
PΙ
                         A1
                               20030522
ΑI
      US 2001-986
                         Α1
                               20011114 (10)
RLI
      Division of Ser. No. US 2001-924340, filed on 6 Aug 2001, PENDING
      WO 2001-IB1715 20010806
PRAI
      US 2001-305456P
                           20010713 (60)
      US 2001-302277P
                          20010629 (60)
      US 2001-298698P
                          20010615 (60)
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PRAI

US 2001-305456P

20010713 (60)

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US 2001-293574P 20010525 (60)
DT
        Utility
FS
        APPLICATION
LREP
       John Lucas, Ph.D., J.D., GENSET CORP., 10665 Sorrento Valley Road, San
       Diego, CA, 92121-1609
CLMN
       Number of Claims: 13
ECL
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 25656
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
       treatment of GENSET-related disorders.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 9 OF 17 USPATFULL on STN
AN
       2003:133926 USPATFULL
TI
       Human cDNAs and proteins and uses thereof
ΙN
       Bejanin, Stephane, Paris, FRANCE
       Tanaka, Hiroaki, Antony, FRANCE
       GENSET, S.A., Paris, FRANCE, 75008 (non-U.S. corporation)
PΑ
ΡI
       US 2003092011
                          A1
                               20030515
ΑI
       US 2001-489
                          A1
                               20011114 (10)
       Division of Ser. No. US 2001-924340, filed on 6 Aug 2001, PENDING
RLI
PRAI
       WO 2001-IB1715
                          20010806
       US 2001-305456P
                          20010713 (60)
       US 2001-302277P
                          20010629 (60)
       US 2001-298698P
                          20010615 (60)
       US 2001-293574P
                          20010525 (60)
DT
       Utility
FS
       APPLICATION
LREP
       John Lucas, Ph.D., J.D., GENSET CORP., 10665 Sorrento Valley Road, San
       Diego, CA, 92121-1609
CLMN
       Number of Claims: 13
ECL
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 25607
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
AΒ
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
       treatment of GENSET-related disorders.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 10 OF 17 USPATFULL on STN
       2003:37603 USPATFULL
AN
       Human cDNAs and proteins and uses thereof
TI
       Bejanin, Stephane, Paris, FRANCE
IN
       Tanaka, Hiroaki, Antony, FRANCE
PΑ
       GENSET, S.A., Paris, FRANCE, 75008 (non-U.S. corporation)
ΡI
       US 2003027248
                       A1
                               20030206
ΑI
       US 2001-924340
                         A1
                               20010806 (9)
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20010629 (60)
       US 2001-302277P
       US 2001-298698P
                           20010615 (60)
       US 2001-293574P
                           20010525 (60)
DΤ
       Utility
FS
       APPLICATION
LREP
       GENSET, JOHN LUCAS, PHD, J.D., 10665 SORRENTO VALLEY RD, SAN DIEGO, CA,
CLMN
       Number of Claims: 13
ECL
       Exemplary Claim: 1
       4 Drawing Page(s)
DRMN
LN.CNT 25650
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
       treatment of GENSET-related disorders.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 11 OF 17 USPATFULL on STN
       2003:37516 USPATFULL
AN
       Human cDNAs and proteins and uses thereof
TI
       Bejanin, Stephane, Paris, FRANCE
ΙN
       Tanaka, Hiroaki, Antony, FRANCE
       GENSET, S.A., Paris, FRANCE, 75008 (non-U.S. corporation)
PΑ
                               20030206
       US 2003027161
PΙ
                         A1
       US 2001-992600
                               20011113 (9)
ΑI
                          A1
       Division of Ser. No. US 2001-924340, filed on 6 Aug 2001, PENDING
RLI
       WO 2001-IB1715
PRAI
                        20010806
       US 2001-305456P
                           20010713 (60)
                          20010629 (60)
       US 2001-302277P
       US 2001-298698P
                         20010615 (60)
                         20010525 (60)
       US 2001-293574P
DT
       Utility
       APPLICATION
FS
       John Lucas, Ph.D., J.D., GENSET CORP., 10665 Sorrento Valley Road, San
LREP
       Diego, CA, 92121-1609
       Number of Claims: 13
CLMN
ECL
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 25529
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns GENSET polynucleotides and polypeptides. Such
       GENSET products may be used as reagents in forensic analyses, as
       chromosome markers, as tissue/cell/organelle-specific markers, in the
       production of expression vectors. In addition, they may be used in
       screening and diagnosis assays for abnormal GENSET expression and/or
       biological activity and for screening compounds that may be used in the
       treatment of GENSET-related disorders.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 12 OF 17 USPATFULL on STN
       2003:115714 USPATFULL
AN
TT
       Schizophrenia associated gene, proteins and biallelic markers
       Cohen, Daniel, Neuilly-sur-Seine, FRANCE
       Blumenfeld, Marta, Paris, FRANCE
```

Chumakov, Ilya, Vaux-le-Penil, FRANCE

Bougueleret, Lydie, Petit Lancy, SWITZERLAND

Essioux, Laurent, Paris, FRANCE Genset S.A., FRANCE (non-U.S. corporation) PΑ PΙ US 6555316 В1 20030429 US 2000-679409 ΑI 20001003 (9) Continuation-in-part of Ser. No. US 2000-539333, filed on 30 Mar 2000, RLI now patented, Pat. No. US 6476208 Continuation-in-part of Ser. No. US 1999-416384, filed on 12 Oct 1999 19991130 (60) PRAI US 1999-168088P Utility DT GRANTED FS EXNAM Primary Examiner: Fredman, Jeffrey LREP Saliwanchik, Lloyd & Saliwanchik Number of Claims: 40 CLMN Exemplary Claim: 1 FCL 20 Drawing Figure(s); 15 Drawing Page(s) DRWN LN.CNT 9055 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The invention concerns the human g35030 gene, polynucleotides, polypeptides biallelic markers, and human chromosome 13q31-q33 biallelic markers. The invention also concerns the association established between schizophrenia and bipolar disorder and the biallelic markers and the g35030 gene and nucleotide sequences. The invention provides means to identify compounds useful in the treatment of schizophrenia, bipolar disorder and related diseases, means to determine the predisposition of individuals to said disease as well as means for the disease diagnosis and prognosis. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L21 ANSWER 13 OF 17 USPATFULL on STN 2002:191539 USPATFULL MAFull-length human cDNAs encoding potentially secreted proteins TITN Milne Edwards, Jean-Baptiste Dumas, Paris, FRANCE Bougueleret, Lydie, Petit Lancy, SWITZERLAND Jobert, Severin, Paris, FRANCE US 2002102604 PΤ 20020801 Α1 ΑТ US 2000-731872 Α1 20001207 (9) PRAI US 1999-169629P 19991208 (60) US 2000-187470P 20000306 (60) DТ Utility FS APPLICATION LREP John Lucas, Ph.D., J.D., Genset Corporation, 10665 Srrento Valley Road, San Diego, CA, 92121-1609 Number of Claims: 29 CLMN ECL Exemplary Claim: 1 DRWN 5 Drawing Page(s) LN.CNT 28061 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The invention concerns GENSET polynucleotides and polypeptides. Such GENSET products may be used as reagents in forensic analyses, as chromosome markers, as tissue/cell/organelle-specific markers, in the production of expression vectors. In addition, they may be used in screening and diagnosis assays for abnormal GENSET expression and/or biological activity and for screening compounds that may be used in the treatment of GENSET-related disorders. CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 14 OF 17 USPATFULL on STN

2002:92245 USPATFULL

ΤI Human genome-derived single exon nucleic acid probes useful for gene expression analysis

LN.CNT 15716

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
Penn, Sharron Gaynor, San Mateo, CA, UNITED STATES
IN
       Rank, David Russell, Fremont, CA, UNITED STATES
       Chen, Wensheng, Mountain View, CA, UNITED STATES
       Hanzel, David Kagen, Palo Alto, CA, UNITED STATES
PΙ
       US 2002048763
                          A1 .
                               20020425
AΙ
       US 2001-864761
                          Α1
                               20010523 (9)
       Continuation-in-part of Ser. No. US 2001-774203, filed on 29 Jan 2001,
RLI
       PENDING Continuation-in-part of Ser. No. US 2000-632366, filed on 3 Aug
       2000, PENDING Continuation-in-part of Ser. No. US 2000-608408, filed on
       30 Jun 2000, PENDING Continuation-in-part of Ser. No. WO 2001-US666,
       filed on 30 Jan 2001, UNKNOWN Continuation-in-part of Ser. No. WO
       2001-US667, filed on 30 Jan 2001, UNKNOWN Continuation-in-part of Ser.
       No. WO 2001-US664, filed on 30 Jan 2001, UNKNOWN Continuation-in-part of
       Ser. No. WO 2001-US669, filed on 30 Jan 2001, UNKNOWN
       Continuation-in-part of Ser. No. WO 2001-US665, filed on 30 Jan 2001,
       UNKNOWN Continuation-in-part of Ser. No. WO 2001-US668, filed on 30 Jan
       2001, UNKNOWN Continuation-in-part of Ser. No. WO 2001-US663, filed on
       30 Jan 2001, UNKNOWN Continuation-in-part of Ser. No. WO 2001-US662,
       filed on 30 Jan 2001, UNKNOWN Continuation-in-part of Ser. No. WO
       2001-US661, filed on 30 Jan 2001, UNKNOWN Continuation-in-part of Ser.
       No. WO 2001-US670, filed on 30 Jan 2001, UNKNOWN
PRAI
       GB 2000-242636
                           20001004
       US 2000-180312P
                           20000204 (60)
                           20000526 (60)
       US 2000-207456P
                           20000921 (60)
       US 2000-234687P
                           20000927 (60)
       US 2000-236359P
DТ
       Utility
FS
       APPLICATION
       FISH & NEAVE, 1251 AVENUE OF THE AMERICAS, 50TH FLOOR, NEW YORK, NY,
LREP
       10020-1105
CLMN
       Number of Claims: 58
       Exemplary Claim: 1
ECL
DRWN
       10 Drawing Page(s)
LN.CNT 9057
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods and apparatus for predicting, confirming and displaying
       functional regions from genomic sequence data are used to identify
       16,834 unique human genome-derived single exon probes useful
       for gene expression analysis, particularly
       gene expression analysis by microarray. Also presented
       are genome-derived single exon microarrays that include such
       probes, peptides encoded by the exons, and antibodies thereto.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 15 OF 17 USPATFULL on STN
ΔN
       2002:60923 USPATFULL
       Single-molecule selection methods and compositions therefrom
IN
       Cubicciotti, Roger S., Montclair, NJ, UNITED STATES
       US 2002034757
                          A1
                               20020321
ΑI
       US 2001~907385
                               20010717 (9)
                         Α1
RLI
       Continuation of Ser. No. US 1998-81930, filed on 20 May 1998, GRANTED,
       Pat. No. US 6287765
DT
       Utility
       APPLICATION
       LICATA & TYRRELL P.C., 66 E. MAIN STREET, MARLTON, NJ, 08053
LREP
CLMN
       Number of Claims: 129
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
```

Single-molecule selection methods are provided for identifying

target-binding molecules from diverse sequence and shape libraries. Complexes and imprints of selected target-binding molecules are also provided. The subject selection methods are used to identify oligonucleotide and nonnucleotide molecules with desirable properties for use in pharmaceuticals, drug discovery, drug delivery, diagnostics, medical devices, cosmetics, agriculture, environmental remediation, smart materials, packaging, microelectronics and nanofabrication. Single oligonucleotide molecules with desirable binding properties are selected from diverse sequence libraries and identified by amplification and sequencing. Alternatively, selected oligonucleotide molecules are identified by sequencing without amplification. Nonnucleotide molecules with desirable properties are identified by single-molecule selection from libraries of conjugated molecules or nucleotide-encoded nonnucleotide molecules. Alternatively, target-specific nonnucleotide molecules are prepared by imprinting selected oligonucleotide molecules into nonnucleotide molecular media. Complexes and imprints of molecules identified by single-molecule selection are shown to have broad utility as drugs, prodrugs, drug delivery systems, willfully reversible cosmetics, diagnostic reagents, sensors, transducers, actuators, adhesives, adherents and novel multimolecular devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L21 ANSWER 16 OF 17 USPATFULL on STN
ΔN
      2002:291075 USPATFULL
      Schizophrenia associated genes, proteins and biallelic markers
TΤ
IN
      Cohen, Daniel, Neuilly-Sue-Seine, FRANCE
      Blumenfeld, Marta, Paris, FRANCE
      Chumakov, Ilya, Vaux-le-Penil, FRANCE
      Bougueleret, Lydie, Vanves, FRANCE
      Bihain, Bernard, Encinitas, CA, United States
      Essioux, Laurent, Paris, FRANCE
      Genset, FRANCE (non-U.S. corporation)
PA
      US 6476208
                              20021105
PΤ
                         B1
      US 2000-539333
                               20000330 (9)
AΤ
RLT
      Continuation-in-part of Ser. No. US 1999-416384, filed on 12 Oct 1999
PRAI
      US 1999-126903P 19990330 (60)
      US 1999-131971P
                         19990430 (60)
      US 1999-132065P
                         19990430 (60)
      US 1999-143928P
                         19990714 (60)
      US 1999-145915P
                         19990727 (60)
      US 1999-146453P
                         19990729 (60)
      US 1999-146452P
                         19990729 (60)
      US 1999-162288P
                         19991028 (60)
DT
      Utility
      GRANTED
EXNAM
      Primary Examiner: Fredman, Jeffrey
      Saliwanchik, Lloyd & Saliwanchik
LREP
      Number of Claims: 21
CLMN
ECL
      Exemplary Claim: 1
      27 Drawing Figure(s); 22 Drawing Page(s)
LN.CNT 10859
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      The invention concerns the human sbg1, g34665, sbg2, g35017 and g35018
AB
      genes, polynucleotides, polypeptides biallelic markers, and human
      chromosome 13g31-g33 biallelic markers. The invention also concerns the
      association established between schizophrenia and bipolar disorder and
      the biallelic markers and the sbg1, g34665, sbg2, g35017 and g35018
```

genes and nucleotide sequences. The invention provides means to identify compounds useful in the treatment of schizophrenia, bipolar disorder and related diseases, means to determine the predisposition of individuals

to said disease as well as means for the disease diagnosis and prognosis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 17 OF 17 USPATFULL on STN

AN2001:152673 USPATFULL

TIMethods for detecting and identifying single molecules

Cubicciotti, Roger S., Montclair, NJ, United States IN

Molecular Machines, Inc., Montclair, NJ, United States (U.S. PA

corporation)

US 6287765 B1 20010911

PΙ US 1998-81930 19980520 (9) AI

DTUtility

GRANTED FS

EXNAM Primary Examiner: Fredman, Jeffrey

LREPLicata & Tyrrell P.C. Number of Claims: 27 CLMN

Exemplary Claim: 1 ECL

DRWN No Drawings

LN.CNT 15456

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Multimolecular devices and drug delivery systems prepared from synthetic AB heteropolymers, heteropolymeric discrete structures, multivalent heteropolymeric hybrid structures, aptameric multimolecular devices, multivalent imprints, tethered specific recognition devices, paired specific recognition devices, nonaptameric multimolecular devices and immobilized multimolecular structures are provided, including molecular adsorbents and multimolecular adherents, adhesives, transducers, switches, sensors and delivery systems. Methods for selecting single synthetic nucleotides, shape-specific probes and specifically attractive surfaces for use in these multimolecular devices are also provided. In addition, paired nucleotide-nonnucleotide mapping libraries for transposition of selected populations of selected nonoligonucleotide molecules into selected populations of replicatable nucleotide sequences are described.

=> d his

(FILE 'HOME' ENTERED AT 12:29:53 ON 01 DEC 2003)

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     01 DEC 2003
            758 S (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) AND SURFACE PL
L1
L2
            746 S L1 AND HYBRIDIZATION
L3
            744 DUP REM L2 (2 DUPLICATES REMOVED)
              1 S (CLASSIF? OR IDENTIF?) (3A) ORGANISMS (6A) (SPECIES OR TAXON)
L4
L5
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L6
              1 S L5 NOT L4
L7
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Ь8
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L9
            252 S L8 AND TARGET
L10
            252 S L9 AND HYBRIDIZATION
L11
            251 S L10 AND ARRAY
L12
            250 S L11 AND RNA
L13
            250 S L12 AND DNA
L14
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             31 S L14 AND IMAGING
L15
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             19 S L16 AND HEAT?
             18 S L17 AND GENE EXPRESSION
L18
              1 S L18 AND ALKANETHIOL?
L19
             17 S L18 NOT L19
L20
L21
             17 DUP REM L20 (0 DUPLICATES REMOVED)
=> s surface plasmon resonance
         13850 SURFACE PLASMON RESONANCE
L22
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   1 FILES SEARCHED...
             4 L22 AND (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) (6A)
L23
               LEVEL
=> d 123 bib abs 1-4
    ANSWER 1 OF 4 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
L23
     2003-765369 [72]
ΔN
                       WPIDS
     2000-655617 [63]; 2002-507229 [54]; 2003-625404 [59]
                        DNC C2003-210037
DNN N2003-613042
     Identification or classification of organism on
     species-specific or taxon-specific level, by
     contacting substrate with sample containing target nucleic acids, and
     analyzing the substrate by surface plasmon
     resonance.
DC
     B04 D16 S03
     CORN, R M; FREDERICK, K; GOODMAN, R M; LILES, M R; NELSON, B P; FREDERICK,
IN
     (CORN-I) CORN R M; (FRED-I) FREDERICK K; (GOOD-I) GOODMAN R M; (LILE-I)
PΑ
     LILES M R; (NELS-I) NELSON B P; (WISC) WISCONSIN ALUMNI RES FOUND
CYC
РΤ
     US 2003049639 A1 20030313 (200372)*
                                               20p
     WO 2003048723 A2 20030612 (200372) EN
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            MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
            DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
            KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
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ZM ZW

ADT US 2003049639 A1 Provisional US 1999-132342P 19990504, Div ex US 1999-368991 19990805, CIP of US 1999-456038 19991203, US 2001-998551 20011129; WO 2003048723 A2 WO 2002-US37362 20021121

FDT US 2003049639 A1 Div ex US 6127129

PRAI US 1999-132342P 19990504; US 1999-368991 19990805; US 1999-456038 19991203; US 2001-998551 20011129

2003-765369 [72] WPIDS

2000-655617 [63]; 2002-507229 [54]; 2003-625404 [59] CR

US2003049639 A UPAB: 20031107 AB

NOVELTY - Organism on species-specific or taxon

-specific level is identified or classified

by contacting substrate with a sample known to or suspected of containing target nucleic acids from an organism to be identified or classified for sequence-specific hybridization, and analyzing the substrate by surface plasmon resonance.

DETAILED DESCRIPTION - Identification or classification of organism on species-specific or taxon-specific level, involves providing a

surface plasmon resonance-capable substrate

having immobilized species- or taxon-specific nucleic acid probes, contacting the substrate with a sample known to or suspected of containing target nucleic acids from an organism to be identified or classified for sequence-specific hybridization to occur between target nucleic acids present in the sample and the nucleic acid probes, and analyzing the substrate by surface plasmon resonance,

where the sequence-specific hybridization between the target nucleic acid in the sample and the nucleic acid probes is detected.

USE - For identifying or classifying organism on

species-specific or taxon-specific level.

ADVANTAGE - The invention can be used to probe many nucleic acid samples in a very short time without requiring any labeling of the target or probe nucleic acid using a recyclable substrate that can be used at least 50 times without signal degradation. It offers the simplicity of direct isolation and hybridization of nucleic acid samples to species-specific and/or taxon-specific nucleic acid probes. It is highly automatable and can be implemented using high-throughput laboratory robots. The washing removes any nucleic acids hybridized to the array without removing any of the immobilized nucleic acid probes that define the array itself.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic representation of surface plasmon resonance apparatus.

20030911

Dwg.1/3

L23 ANSWER 2 OF 4 USPATFULL on STN

2003:244204 USPATFULL

ΤI Rapid and sensitive detection of cells and viruses

Straus, Don, Cambridge, MA, UNITED STATES

PΤ US 2003170613

20020906 (10)

A1

US 2001-317658P 2000 Utility PRAI 20010906 (60)

DTUtility

FS APPLICATION

LREP CLARK & ELBING LLP, 101 FEDERAL STREET, BOSTON, MA, 02110

CLMN Number of Claims: 136 ECLExemplary Claim: 1

DRWN 43 Drawing Page(s)

LN.CNT 6552

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention provides efficient methods for rapidly and sensitively AB identifying cellular and viral targets in medical, industrial, and

environmental samples. The invention labels targets and then detects them using large area imaging. Diagnostic tests based on the invention can be rapid, ultrasensitive, quantitative, multiplexed, and automated. The tests minimize sample preparation and do not require nucleic acid amplification or cell culture. A broad range of cells and viruses can be detected by the tests. Tests based on the invention can deliver the high level sensitivity of nucleic acid amplification tests, the user-friendliness, and speed of immunoassays, as well as the cost effectiveness and quantification offered by microbiological tests. The invention embodies the best attributes of the current diagnostic technologies, while addressing gaps in the diagnostic repertoire.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L23 ANSWER 3 OF 4 USPATFULL on STN

AN 2003:120999 USPATFULL

TI Molecular interaction sites of vimentin RNA and methods of modulating the same

IN Ecker, David J., Encinitas, CA, UNITED STATES
Griffey, Richard, Vista, CA, UNITED STATES
Crooke, Stanley T., Carlsbad, CA, UNITED STATES
Sampath, Ranga, San Diego, CA, UNITED STATES
Swayze, Eric E., Carlsbad, CA, UNITED STATES
Mohan, Venkatraman, Plainsboro, NJ, UNITED STATES
Hofstadler, Steven, Oceanside, CA, UNITED STATES
McNeil, John, La Jolla, CA, UNITED STATES

PI US 2003083483 A1 20030501

AI US 2002-135017 A1 20020424 (10)

RLI Continuation-in-part of Ser. No. US 1999-310907, filed on 12 May 1999, PENDING

DT Utility

FS APPLICATION

LREP Paul K. Legaard, WOODCOCK WASHBURN LLP, 46th Floor, One Liberty Place, Philadelphia, PA, 19103

CLMN Number of Claims: 38

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 2969

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Methods for the identification of compounds which modulate, either inhibit or stimulate, biomolecules are provided. Nucleic acids, especially RNAs are preferred substrates for such modulation. The present methods are particularly powerful in that they provide novel combinations of techniques which give rise to compounds, usually "small" organic compounds, which are highly potent modulators of RNA and other biomolecular activity. In accordance with preferred aspects of the invention, very large numbers of compounds may be tested essentially simultaneously to determine whether they are likely to interact with a molecular interaction site and modulate the activity of the biomolecule. Pharmaceuticals, veterinary drugs, agricultural chemicals, industrial chemicals, research chemicals and many other beneficial compounds may be identified in accordance with embodiments of this invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L23 ANSWER 4 OF 4 USPATFULL on STN

AN 2003:71354 USPATFULL

TI Label-free detection of nucleic acids via surface plasmon resonance

IN Nelson, Bryce P., Madison, WI, UNITED STATES
Liles, Mark R., Madison, WI, UNITED STATES
Frederick, Kendra, Madison, WI, UNITED STATES

Corn, Robert M., Madison, WI, UNITED STATES Goodman, Robert M., Madison, WI, UNITED STATES

PI US 2003049639 A1 20030313

AI US 2001-998551 A1 20011129 (9)

RLI Continuation-in-part of Ser. No. US 1999-456038, filed on 3 Dec 1999, PENDING Division of Ser. No. US 1999-368991, filed on 5 Aug 1999, GRANTED, Pat. No. US 6127129

PRAI US 1999-132342P 19990504 (60)

DT Utility

FS APPLICATION

LREP DEWITT ROSS & STEVENS S.C., 8000 EXCELSIOR DR, SUITE 401, MADISON, WI, 53717-1914

CLMN Number of Claims: 27 ECL Exemplary Claim: 1 DRWN 4 Drawing Page(s)

LN.CNT 1301

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed is a method to detect unlabeled nucleic acids (DNA and/or RNA) in a taxa, species, and organelle-specific fashion using surface plasmon resonance (SPR) imaging. Taxa-specific, species-specific, or organelle-specific nucleic acids are affixed to an SPR-suitable substrate. A nucleic acid sample to be analyzed is then contacted with the SPR-substrate and the substrate analyzed to determine the presence or absence of specific hybridization between the nucleic acids bound to the substrate and the nucleic acids contained in the sample. The method does not require that either the bound nucleic acids nor the sample nucleic acids be labeled. The method can be used to identify the source of nucleic acids, their sequence, as well as to identify organisms and place them within a given taxonomic hierarchy.

=> d his

2003-765369 [72] WPIDS

(FILE 'HOME' ENTERED AT 12:29:53 ON 01 DEC 2003) FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 12:30:11 ON 01 DEC 2003 758 S (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) AND SURFACE PL L1L2746 S L1 AND HYBRIDIZATION L3 744 DUP REM L2 (2 DUPLICATES REMOVED) L41 S (CLASSIF? OR IDENTIF?) (3A) ORGANISMS (6A) (SPECIES OR TAXON) L5 2 S (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) AND SURFACE PL L6 1 S L5 NOT L4 751 S (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) AND SURFACE PL L7 L8253 S L7 AND IMMOBILI? (5A) PROBES L9 252 S L8 AND TARGET L10 252 S L9 AND HYBRIDIZATION L11 251 S L10 AND ARRAY L12 250 S L11 AND RNA L13 250 S L12 AND DNA L1432 S L13 AND RIBOSOM? L15 31 S L14 AND IMAGING L16 31 S L15 AND FRAGMENT? L17 19 S L16 AND HEAT? L18 18 S L17 AND GENE EXPRESSION L19 1 S L18 AND ALKANETHIOL? L2017 S L18 NOT L19 17 DUP REM L20 (0 DUPLICATES REMOVED) L21 L22 13850 S SURFACE PLASMON RESONANCE L23 4 S L22 AND (CLASSIF? OR IDENTIF?) (6A) (SPECIES OR TAXON) (6A) L => s 122 and probes (2a) immobili? L24 378 L22 AND PROBES (2A) IMMOBILI? => s 124 and identif? L25334 L24 AND IDENTIF? => s 125 and substrate 326 L25 AND SUBSTRATE => s 126 and target 322 L26 AND TARGET => s 127 and hybridization 320 L27 AND HYBRIDIZATION => s 128 and (species or taxon)(6a) specif? 252 L28 AND (SPECIES OR TAXON) (6A) SPECIF? => 129 and plasmon?/ti L29 IS NOT A RECOGNIZED COMMAND The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>). => s 129 and plasmon?/ti L30 2 L29 AND PLASMON?/TI => d 130 bib abs 1-2 L30 ANSWER 1 OF 2 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

2000-655617 [63]; 2002-507229 [54]; 2003-625404 [59] DNC C2003-210037 DNN N2003-613042 Identification or classification of organism on species TΤ -specific or taxon-specific level, by contacting substrate with sample containing target nucleic acids, and analyzing the substrate by surface plasmon resonance. B04 D16 S03 DC: CORN, R M; FREDERICK, K; GOODMAN, R M; LILES, M R; NELSON, B P; FREDERICK, ΤN PA(CORN-I) CORN R M; (FRED-I) FREDERICK K; (GOOD-I) GOODMAN R M; (LILE-I) LILES M R; (NELS-I) NELSON B P; (WISC) WISCONSIN ALUMNI RES FOUND CYC 102 US 2003049639 A1 20030313 (200372)* Τď 20p WO 2003048723 A2 20030612 (200372) EN RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW ADT US 2003049639 A1 Provisional US 1999-132342P 19990504, Div ex US 1999-368991 19990805, CIP of US 1999-456038 19991203, US 2001-998551 20011129; WO 2003048723 A2 WO 2002-US37362 20021121 FDT US 2003049639 A1 Div ex US 6127129 PRAI US 1999-132342P 19990504; US 1999-368991 19990805; US 1999-456038 19991203; US 2001-998551 20011129 AN2003-765369 [72] WPIDS 2000-655617 [63]; 2002-507229 [54]; 2003-625404 [59] CR US2003049639 A UPAB: 20031107 AΒ NOVELTY - Organism on species-specific or taxon-specific level is identified or classified by contacting substrate with a sample known to or suspected of containing target nucleic acids from an organism to be identified or classified for sequence-specific hybridization, and analyzing the substrate by surface plasmon resonance. DETAILED DESCRIPTION - Identification or classification of organism on species-specific or taxonspecific level, involves providing a surface plasmon resonance-capable substrate having immobilized species - or taxon-specific nucleic acid probes, contacting the substrate with a sample known to or suspected of containing target nucleic acids from an organism to be identified or classified for sequence-specific hybridization to occur between target nucleic acids present in the sample and the nucleic acid probes, and analyzing the substrate by surface plasmon resonance , where the sequence-specific hybridization between the target nucleic acid in the sample and the nucleic acid probes is USE - For identifying or classifying organism on species-specific or taxon-specific level. ADVANTAGE - The invention can be used to probe many nucleic acid samples in a very short time without requiring any labeling of the target or probe nucleic acid using a recyclable substrate that can be used at least 50 times without signal degradation. It offers the simplicity of direct isolation and hybridization of nucleic

acid samples to species-specific and/or taxon

-specific nucleic acid probes. It is highly automatable and can

be implemented using high-throughput laboratory robots. The washing removes any nucleic acids hybridized to the array without removing any of the immobilized nucleic acid probes that define the array itself.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic representation of surface plasmon resonance apparatus.

Dwg.1/3

L30 ANSWER 2 OF 2 USPATFULL on STN

AN 2003:71354 USPATFULL

TI Label-free detection of nucleic acids via surface

plasmon resonance

Nelson, Bryce P., Madison, WI, UNITED STATES
Liles, Mark R., Madison, WI, UNITED STATES
Frederick, Kendra, Madison, WI, UNITED STATES
Corn, Robert M., Madison, WI, UNITED STATES
Goodman, Robert M., Madison, WI, UNITED STATES

PI US 2003049639 A1 20030313

AI US 2001-998551 A1 20011129 (9)

RLI Continuation-in-part of Ser. No. US 1999-456038, filed on 3 Dec 1999, PENDING Division of Ser. No. US 1999-368991, filed on 5 Aug 1999, GRANTED, Pat. No. US 6127129

PRAI US 1999-132342P 19990504 (60)

DT Utility

FS APPLICATION

LREP DEWITT ROSS & STEVENS S.C., 8000 EXCELSIOR DR, SUITE 401, MADISON, WI, 53717-1914

CLMN Number of Claims: 27 ECL Exemplary Claim: 1 DRWN 4 Drawing Page(s)

LN.CNT 1301

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed is a method to detect unlabeled nucleic acids (DNA and/or RNA) in a taxa, species, and organelle-specific fashion using surface plasmon resonance (SPR) imaging. Taxa-specific, species-specific, or organelle-specific nucleic acids are affixed to an SPR-suitable substrate. A nucleic acid sample to be analyzed is then contacted with the SPR-substrate and the substrate analyzed to determine the presence or absence of specific hybridization between the nucleic acids bound to the substrate and the nucleic acids contained in the sample. The method does not require that either the bound nucleic acids nor the sample nucleic acids be labeled. The method can be used to identify the source of nucleic acids, their sequence, as well as to identify organisms and place them within a given taxonomic hierarchy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s l29 and surface/ti L31 3 L29 AND SURFACE/TI

=> s 131 not 130

L32 1 L31 NOT L30

=> d 132 bib abs

L32 ANSWER 1 OF 1 USPATFULL on STN AN 2003:140464 USPATFULL

```
Novel human membrane-associated protein and cell surface
       protein family members
IN
       Meyers, Rachel E., Newton, MA, UNITED STATES
       Glucksmann, Maria Alexandra, Lexington, MA, UNITED STATES
       Curtis, Rory A. J., Framingham, MA, UNITED STATES
       Kapeller-Libermann, Rosana, Chestnut Hill, MA, UNITED STATES
       Bandaru, Rajasekhar, Watertown, MA, UNITED STATES
       Leiby, Kevin R., Natick, MA, UNITED STATES
PΙ
       US 2003096305
                          Α1
                               20030522
ΑI
       US 2002-162435
                          Α1
                                20020604 (10)
RLI
       Continuation-in-part of Ser. No. US 2001-836499, filed on 17 Apr 2001,
       PENDING
       WO 2001-US12420
PRAI
                           20010417
       WO 2001-US19963
                           20010625
       WO 2001-US16013
                           20010518
       WO 2001-US20055
                           20010621
       WO 2002-US275
                           20020108
       WO 2001-US41811
                           20010821
       US 2000-197507P
                           20000418 (60)
       US 2000-214220P
                           20000623 (60)
       US 2000-205674P
                           20000519 (60)
       US 2000-213963P
                           20000623 (60)
       US 2001-260286P
                           20010108 (60)
       US 2000-226612P
                           20000821 (60)
DT
       Utility
FS
       APPLICATION
       LOUIS MYERS, Fish & Richardson P.C., 225 Franklin Street, Boston, MA,
LREP
       02110-2804
CLMN
       Number of Claims: 19
ECL
       Exemplary Claim: 1
DRWN
       22 Drawing Page(s)
LN.CNT 30445
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides isolated nucleic acids molecules, designated
AB
       16051a, 16051b, 58199, 57805, 56739, 39362, and 23228 nucleic acid
       molecules, which encode novel human membrane-associated protein family
       members, and human cell surface protein family members. The invention
       also provides antisense nucleic acid molecules, recombinant expression
       vectors containing 16051a, 16051b, 58199, 57805, 56739, 39362, or 23228
       nucleic acid molecules, host cells into which the expression vectors
      have been introduced, and nonhuman transgenic animals in which a 16051a,
       16051b, 58199, 57805, 56739, 39362, or 23228 gene has been introduced or
      disrupted. The invention still further provides isolated 16051a, 16051b,
       58199, 57805, 56739, 39362, or 23228 proteins, fusion proteins,
      antigenic peptides and anti-16051a, 16051b, 58199, 57805, 56739, 39362,
      or 23228 antibodies. Diagnostic methods utilizing compositions of the
       invention are also provided.
```

FILE 'HOME' ENTERED AT 10:52:49 ON 10 DEC 2003

=> file biosis medline caplus wpids uspatfull COST IN U.S. DOLLARS

SINCE FILE ENTRY

FULL ESTIMATED COST

ENTRY SESSION 0.21 0.21

TOTAL

FILE 'BIOSIS' ENTERED AT 10:53:09 ON 10 DEC 2003 COPYRIGHT (C) 2003 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'MEDLINE' ENTERED AT 10:53:09 ON 10 DEC 2003

FILE 'CAPLUS' ENTERED AT 10:53:09 ON 10 DEC 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 10:53:09 ON 10 DEC 2003 COPYRIGHT (C) 2003 THOMSON DERWENT

FILE 'USPATFULL' ENTERED AT 10:53:09 ON 10 DEC 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s surface plasmon resonance and rna L1 2973 SURFACE PLASMON RESONANCE AND RNA

=> s l1 and rna probe? L2 254 L1 AND RNA PROBE?

=> s l3 and mrna L4 9 L3 AND MRNA

=> s 14 andcDNA MISSING OPERATOR L4 ANDCDNA The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s 14 and cDNA L5 9 L4 AND CDNA

=> dup rem 15
PROCESSING COMPLETED FOR L5
L6 9 DUP REM L5 (0 DUPLICATES REMOVED)

=> d 16 bib abs 1-9

ANSWER 1 OF 9 USPATFULL on STN **T**₁6 2003:306387 USPATFULL ANDetection of nucleic acid reactions on bead arrays TIIN Gunderson, Kevin, Encinitas, CA, UNITED STATES Stuelpnagel, John R., Encinitas, CA, UNITED STATES Chee, Mark S., Del Mar, CA, UNITED STATES US 2003215821 PΙ A1 20031120 A1 US 2002-264571 AΙ 20021004 (10) Continuation of Ser. No. US 2000-553993, filed on 20 Apr 2000, PENDING RLIUS 1999-135123P 19990520 (60) PRAI

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US 1999-160917P
                            19991022 (60)
       US 1999-135051P
                            19990520 (60)
       US 1999-161148P
                            19991022 (60)
       US 1999-130089P
                            19990420 (60)
       US 1999-160027P
                            19991018 (60)
       US 1999-135053P
                            19990520 (60)
DT
       Utility
FS
       APPLICATION
LREP
       Vicki G. Norton, Esq., BROBECK, PHLEGER & HARRISON LLP, 12390 El Camino
       Real, San Diego, CA, 92130
CLMN
       Number of Claims: 14
ECL
       Exemplary Claim: 1
DRWN
       19 Drawing Page(s)
LN.CNT 6549
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention is directed to methods and compositions for the
       use of microsphere arrays to detect and quantify a number of nucleic
       acid reactions. The invention finds use in genotyping, i.e. the
       determination of the sequence of nucleic acids, particularly alterations
       such as nucleotide substitutions (mismatches) and single nucleotide
       polymorphisms (SNPs). Similarly, the invention finds use in the
       detection and quantification of a nucleic acid target using a variety of
       amplification techniques, including both signal amplification and target
       amplification. The methods and compositions of the invention can be used
       in nucleic acid sequencing reactions as well. All applications can
       include the use of adapter sequences to allow for universal arrays.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
Ь6
     ANSWER 2 OF 9 USPATFULL on STN
AN
       2003:294280 USPATFULL
       Detection of nucleic acid reactions on bead arrays
TI
       Gunderson, Kevin, Encinitas, CA, UNITED STATES
IN
       Stuelpnagel, John R., Encinitas, CA, UNITED STATES
       Chee, Mark S., Del Mar, CA, UNITED STATES
ΡI
       US 2003207295
                           A1
                                20031106
AΙ
       US 2002-264574
                          A1
                                20021004 (10)
       Continuation of Ser. No. US 2000-553993, filed on 20 Apr 2000, PENDING
RLI
PRAI
       US 1999-135123P 19990520 (60)
       US 1999-160917P
                            19991022 (60)
       US 1999-135051P
                            19990520 (60)
       US 1999-161148P
                            19991022 (60)
       US 1999-130089P
                            19990420 (60)
       US 1999-160027P
                            19991018 (60)
       US 1999-135053P
                           19990520 (60)
       Utility
DТ
FS
       APPLICATION
LREP
       Vicki G. Norton, Esq., BROBECK, PHLEGER & HARRISON LLP, 12390 El Camino
       Real, San Diego, CA, 92130
CLMN
       Number of Claims: 14
ECL
       Exemplary Claim: 1
       26 Drawing Page(s)
LN.CNT 6546
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       The present invention is directed to methods and compositions for the
       use of microsphere arrays to detect and quantify a number of nucleic
       acid reactions. The invention finds use in genotyping, i.e. the
       determination of the sequence of nucleic acids, particularly alterations
       such as nucleotide substitutions (mismatches) and single nucleotide
       polymorphisms (SNPs). Similarly, the invention finds use in the detection and quantification of a nucleic acid target using a variety of
```

amplification techniques, including both signal amplification and target

amplification. The methods and compositions of the invention can be used in nucleic acid sequencing reactions as well. All applications can include the use of adapter sequences to allow for universal arrays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L6
     ANSWER 3 OF 9 USPATFULL on STN
AN
       2003:288614 USPATFULL
TΙ
       Analysis method
TN
       Ward, Neil Raymond, Oxford, UNITED KINGDOM
       Mundy, Christopher Robert, Oxford, UNITED KINGDOM
       Kan, On, Oxford, UNITED KINGDOM
       Harris, Robert Alan, Oxford, UNITED KINGDOM
       White, Jonathan, Oxford, UNITED KINGDOM
       Binley, Katie Mary, Oxford, UNITED KINGDOM
       Rayner, William Nigel, Oxford, UNITED KINGDOM
       Naylor, Stuart, Oxford, UNITED KINGDOM
       Kingsman, Susan Mary, Oxford, UNITED KINGDOM
       Krige, David, Oxford, UNITED KINGDOM
PΙ
       US 2003203372
                          A1
                               20031030
ΑI
       US 2002-170385
                          A1
                               20020612 (10)
       Continuation-in-part of Ser. No. WO 2002-GB1662, filed on 8 Apr 2002,
RLI
       UNKNOWN Continuation-in-part of Ser. No. WO 2001-GB5458, filed on 10 Dec
       2001, UNKNOWN
PRAI
       GB 2001-9008
                           20010410
       GB 2000-30076
                           20001208
       GB 2001-3156
                           20010208
       GB 2001-25666
                           20011025
DT
       Utility
FS
       APPLICATION
       Bruce D. Grant, Morrison & Foerster LLP, Suite 500, 3811 Valley Centre
LREP
       Drive, San Diego, CA, 92130
       Number of Claims: 84
CLMN
       Exemplary Claim: 1
DRWN
       98 Drawing Page(s)
LN.CNT 14993
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       This invention relates to novel methods for the identification of genes
AΒ
```

and gene products that are implicated in certain disease states. According to the invention, there is provided a method for the identification of a gene that is implicated in a specific disease or physiological condition, said method comprising the steps of comparing:

i) the transcriptome or proteome of a first specialized cell type that

i) the transcriptome or proteome of a first specialized cell type that is implicated in the disease or condition under first and second experimental conditions; with ii) the transcriptome or proteome of a second specialized cell type under said first and said second experimental conditions; and identifying as a gene implicated in the disease or physiological condition, a gene that is differentially regulated in the two specialized cell types under the first and second experimental conditions. The invention also relates to novel genes and gene products identified using these methods.

```
L6 ANSWER 4 OF 9 USPATFULL on STN

AN 2003:227348 USPATFULL

TI Methods of using transporter-like molecules to treat pain and pain-related disorders

IN Goodearl, Andrew D. J., Natick, MA, UNITED STATES Silos-Santiago, Inmaculada, Cambridge, MA, UNITED STATES

PA Millennium Pharmaceuticals, Inc. (U.S. corporation)

PI US 2003159162 A1 20030821
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US 2002-120583

A1

20020411 (10)

ΑI

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ΑI
       US 2003-385760
                          Α1
                                20030311 (10)
       Division of Ser. No. US 2001-273, filed on 2 Nov 2001, GRANTED, Pat. No.
RLI
       US 6573057 Continuation-in-part of Ser. No. US 2000-496692, filed on 2
       Feb 2000, GRANTED, Pat. No. US 6313271 Division of Ser. No. US
        1997-964127, filed on 6 Nov 1997, GRANTED, Pat. No. US 6277565
DT
       Utility
FS
       APPLICATION
LREP
       MILLENNIUM PHARMACEUTICALS, INC., 75 Sidney Street, Cambridge, MA, 02139
       Number of Claims: 17
CLMN
ECL
       Exemplary Claim: 1
DRWN
       8 Drawing Page(s)
LN.CNT 3436
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention relates to OCT-3 polypeptides, nucleic acid molecules
       encoding OCT-3, and uses thereof. OCT-3 is a protein that is expressed
       in the plasma membrane of biological cells, across which it regulates
       the transport of organic molecules.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L6
     ANSWER 5 OF 9 USPATFULL on STN
AN
       2003:220740 USPATFULL
TΙ
       Methods and compositions for diagnosing and treating rheumatoid
IN
       Pittman, Debra D., Windham, NH, UNITED STATES
       Feldman, Jeffrey L., Arlington, MA, UNITED STATES
       Shields, Kathleen M., Harvard, MA, UNITED STATES
       Trepicchio, William L., Andover, MA, UNITED STATES
PΙ
       US 2003154032
                        A1
                               20030814
       US 2001-23451
ΑI
                         A1
                               20011217 (10)
       US 2000-255861P
PRAI
                          20001215 (60)
DT
       Utility
FS
       APPLICATION
LREP
       Patent Group, FOLEY, HOAG & ELIOT LLP, One Post Office Square, Boxton,
       MA, 02109
CLMN
       Number of Claims: 40
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 25385
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides methods and compositions for diagnostic assays
AB
       for detecting R.A. and therapeutic methods and compositions for treating
       R.A. The invention also provides methods for designing, identifying, and
       optimizing therapeutics for R.A. Diagnostic compositions of the
       invention include compositions comprising detection agents for detecting
       one or more genes that have been shown to be up- or down-regulated in
       cells of R.A. relative to normal counterpart cells. Exemplary detection
       agents include nucleic acid probes, which can be in solution or attached
       to a solid surface, e.g., in the form of a microarray. The invention
       also provides computer-readable media comprising values of levels of
       expression of one or more genes that are up- or down-regulated in R.A.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 6 OF 9 USPATFULL on STN
L6
AN
       2003:93026 USPATFULL
ΤI
       Genes expressed in breast cancer as prognostic and therapeutic targets
IN
       Dressman, Marlene Michelle, Germantown, MD, UNITED STATES
       Lavedan, Christian Nicolas, Potomac, MD, UNITED STATES
       Polymeropoulos, Mihael, Potomac, MD, UNITED STATES
ΡI
       US 2003064385
                         A1
                               20030403
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US 2001-291428P 20010516 (60) PRAI Utility FS APPLICATION THOMAS HOXIE, NOVARTIS CORPORATION, PATENT AND TRADEMARK DEPT, 564 LREP MORRIS AVENUE, SUMMIT, NJ, 079011027 CLMN Number of Claims: 81 ECL Exemplary Claim: 1 DRWN No Drawings LN.CNT 3585 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Methods are disclosed for, determining the endocrine responsiveness of breast carcinoma and treating and monitoring the progression of breast carcinoma based on genes which are differentially expressed in breast tumors. Also disclosed are methods for identifying agents useful in the treatment of breast carcinoma, methods for monitoring the efficacy of a treatment for breast carcinoma, methods for inhibiting the proliferation of a breast carcinoma, and breast-specific vectors including the promoters of the disclosed genes. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L₆ ANSWER 7 OF 9 USPATFULL on STN AN2003:71354 USPATFULL ΤI Label-free detection of nucleic acids via surface plasmon resonance Nelson, Bryce P., Madison, WI, UNITED STATES TN Liles, Mark R., Madison, WI, UNITED STATES Frederick, Kendra, Madison, WI, UNITED STATES Corn, Robert M., Madison, WI, UNITED STATES Goodman, Robert M., Madison, WI, UNITED STATES PΙ US 2003049639 A1 20030313 ΑI US 2001-998551 A1 20011129 (9) Continuation-in-part of Ser. No. US 1999-456038, filed on 3 Dec 1999, RLI PENDING Division of Ser. No. US 1999-368991, filed on 5 Aug 1999, GRANTED, Pat. No. US 6127129 PRAI US 1999-132342P 19990504 (60) DТ Utility FS APPLICATION DEWITT ROSS & STEVENS S.C., 8000 EXCELSIOR DR, SUITE 401, MADISON, WI, 53717-1914 CLMNNumber of Claims: 27 ECL Exemplary Claim: 1 DRWN 4 Drawing Page(s) LN.CNT 1301 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Disclosed is a method to detect unlabeled nucleic acids (DNA and/or RNA) in a taxa, species, and organelle-specific fashion using surface plasmon resonance (SPR) imaging. Taxa-specific, species-specific, or organelle-specific nucleic acids are affixed to an SPR-suitable substrate. A nucleic acid sample to be analyzed is then contacted with the SPR-substrate and the substrate analyzed to determine the presence or absence of specific hybridization between the nucleic acids bound to the substrate and the nucleic acids contained in the sample. The method does not require that either the bound nucleic acids nor the sample nucleic acids be labeled. The method can be used to identify the source of nucleic acids, their sequence, as well as to identify organisms and place them within a given taxonomic hierarchy.

```
2002:296075 USPATFULL
TI
       Neokine protein and nucleic acid molecules and uses therefor
IN
       Barnes, Thomas M., Newton, MA, UNITED STATES
       Mackay, Charles, Watertown, MA, UNITED STATES
PA
       Millennium Pharmaceuticals, Inc (U.S. corporation)
PΙ
       US 2002166133
                          A1
                                20021107
ΑI
       US 2001-940240
                          A1
                                20010827 (9)
       Continuation of Ser. No. US 1999-248239, filed on 10 Feb 1999, ABANDONED
RLI
       Continuation-in-part of Ser. No. US 1998-23664, filed on 10 Feb 1998,
       ABANDONED
DT
       Utility
FS
       APPLICATION
       Millennium Pharmaceuticals, Inc., 75 Sidney Street, Cambridge, MA, 02139
LREP
CLMN
       Number of Claims: 22
ECL
       Exemplary Claim: 1
       9 Drawing Page(s)
DRWN
LN.CNT 4747
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Novel NEOKINE polypeptides, proteins, and nucleic acid molecules are
       disclosed. In addition to isolated, full-length NEOKINE proteins, the
       invention further provides isolated NEOKINE fusion proteins, antigenic
       peptides and anti-NEOKINE antibodies. The invention also provides
       NEOKINE nucleic acid molecules, recombinant expression vectors
       containing a nucleic acid molecule of the invention, host cells into
       which the expression vectors have been introduced and non-human
       transgenic animals in which a NEOKINE gene has been introduced or
       disrupted. Diagnostic, screening and therapeutic methods utilizing
       compositions of the invention are also provided.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
Lб
     ANSWER 9 OF 9 USPATFULL on STN
AN
       2002:287523 USPATFULL
       Methods of using transporter-like molecules to treat pain and
TI
       pain-related disorders
       Goodearl, Andrew D.J., Natick, MA, UNITED STATES
IN
       Silos-Santiago, Inmaculada, Cambridge, MA, UNITED STATES
PΑ
       Millennium Pharmaceuticals, Inc., a Delaware corporation (U.S.
       corporation)
PΙ
       US 2002160386
                          A1
                               20021031
       US 6573057
                          B2
                               20030603
       US 2001-273
                          A1
                               20011102 (10)
      Division of Ser. No. US 2000-496692, filed on 2 Feb 2000, GRANTED, Pat.
RLI
      No. US 6313271 Division of Ser. No. US 1997-964127, filed on 6 Nov 1997,
       GRANTED, Pat. No. US 6277565
DT
      Utility
FS
      APPLICATION
      MILLENNIUM PHARMACEUTICALS, INC., 75 Sidney Street, Cambridge, MA, 02139
LREP
      Number of Claims: 20
      Exemplary Claim: 1
      8 Drawing Page(s)
LN.CNT 2986
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      The invention relates to OCT-3 polypeptides, nucleic acid molecules
AB
      encoding OCT-3, and uses thereof. OCT-3 is a protein that is expressed
      in the plasma membrane of biological cells, across which it regulates
      the transport of organic molecules.
```

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=> s 19 and mrna
L10 11 L9 AND MRNA
=> d l10 bib abs 1-11
L10 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2003 ACS on STN
AN
     2002:522500 CAPLUS
DN
     137:58579
TΙ
     Kits and methods for direct measurement of gene expression using single
     chain antisense DNA or RNA arrays
IN
     Zhang, Jia; Li, Kai; Zhang, Yunshi; Zhang, Xu
PA
SO
     U.S. Pat. Appl. Publ., 11 pp.
     CODEN: USXXCO
DT
     Patent
_{\rm LA}
    English
FAN.CNT 1
     PATENT NO. KIND DATE APPLICATION NO. DATE
                                         ------
     US 2002090614 A1 20020711
                                         US 2001-758601 20010109
PRAI US 2001-758601
                     20010109
     A method for direct measurement of multiple gene expressions at RNA level
     is provided. Gene product RNA isolated from biol. sample is directly used
     to hybridize with prelabeled single chain antisense probes immobilized on
     a solid support. As compared to the indirect assay of cDNA, the subject
     method is reliable to assay all types of RNA including ribosomal,
     transfer, messenger, and ribozyme RNAs, as well as mRNA with
     partial degraded. This invention finds use in assay for multiple gene
     expressions, esp. when higher sensitivity and accuracy is required such as
     for those of minor changes and those of less abundant RNA. Antisense DNA
     or RNA (single stranded) are used as probes in microarrays or macroarrays.
     Unhybridized prelabeled probes are removed by S1 nuclease digestion and
     hybridized RNA are quantitated on the array. Methods for prepn. of
     antisense DNA or RNA probes are provided. These include precoating the
     array with milk protein and/or poly T nucleotides and the prelabeled
     antisense probes are coated onto array surface by UV crosslinking, forming
     a covalent bond. Hybridization of RNA from an ext. with the
     oligonucleotide probes is performed at a temp. between 50-68.degree.C.
L10 ANSWER 2 OF 11 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
    2003-541643 [51] WPIDS
AN
DNN N2003-429545
                       DNC C2003-147037
     Providing internal identification of RNA or protein samples from a
     biological specimen, useful for quality control purposes, comprises using
     a molecular barcode made up of spike-in tags added to the sample before or
     during processing.
DC
     B04 D16 S03 T01
IN
     JONES, A; MARTON, M
     (ROSE-N) ROSETTA INPHARMATICS INC
PΑ
CYC 22
PΙ
     WO 2003052101 A1 20030626 (200351) * EN
                                           36p
       RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
        W: CA JP US
    WO 2003052101 A1 WO 2001-US48527 20011214
PRAI WO 2001-US48527 20011214
AN
     2003-541643 [51]
                     WPIDS
AB
     WO2003052101 A UPAB: 20030808
     NOVELTY - Providing (M1) internal identification of a sample comprising
     RNA or protein from a biological specimen such that the sample can be
     tracked through a processing step, comprising using a molecular barcode
```

AΒ

made up of spike-in tags added to the sample before or during processing, is new.

DETAILED DESCRIPTION - M1 comprises:

- (a) adding one or more spike-in tags that are RNA or protein molecules that form a first molecular barcode to the sample;
 - (b) processing the sample through a plurality of processing steps;
- (c) determining the identity of the spike-in tags in the processed sample to determine a second molecular barcode; and
- (d) comparing the first molecular barcode to determine whether the first molecular barcode does not differ from the second molecular barcode, where a match indicates that the sample has been tracked through the processing step.

INDEPENDENT CLAIMS are also included for:

- (1) an RNA molecule comprising a sequence of at least 20 contiguous nucleotides of which at least 50% are random, and a poly A tail;
 - (2) synthesizing an RNA spike-in tag;
- (3) a kit comprising a plurality of separate containers, each container containing an RNA molecule cited above, where an RNA molecule in each container has a different sequence;
- (4) tracking a plurality of samples, each sample comprising RNA from a different biological specimen, or nucleic acid derived from it;
- (5) using a computer to determine the identity of a processed sample containing a molecular barcode having one or more spike-in tags;
- (6) a computer system for determining the identity of a sample, comprising one or more processor units and one or more memory units connected to the processor units, the memory units containing one or more programs which cause the processor units to perform the steps of method (5); and
- (7) a computer-readable medium containing an encoded data structure which comprises a digital representation of:
 - (a) the identity of each sample associated with a molecular barcode;
- (b) the particular spike-in tags comprising each molecular barcode; and
- (c) which of the molecular barcodes has been added to which of the samples.
- USE M1 is useful for determining the identity of a particular sample, or in quality control applications. $\ensuremath{\text{Dwg.0/7}}$

```
L10 ANSWER 3 OF 11 USPATFULL on STN
AN
       2003:300243 USPATFULL
       Methods for identifying functionally related genes and drug targets
TΙ
IN
       Keene, Jack D., Durham, NC, UNITED STATES
       Tenenbaum, Scott A., Durham, NC, UNITED STATES
       Carson, Craig C., Raleigh, NC, UNITED STATES
       Phelps, William C., Durham, NC, UNITED STATES
PA
       Ribonomics, Inc., Durham, NC (U.S. corporation)
PΙ
       US 2003211466
                          A1
                               20031113
ΑI
       US 2002-309788
                         A1
                               20021204 (10)
RLI
       Continuation-in-part of Ser. No. US 2000-750401, filed on 28 Dec 2000,
PRAI
       US 1999-173338P 19991228 (60)
DΤ
       Utility
FS
       APPLICATION
       TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125 HIGH STREET,
LREP
       BOSTON, MA, 02110
CLMN
       Number of Claims: 53
       Exemplary Claim: 1
ECL
DRWN
       16 Drawing Page(s)
LN.CNT 2384
```

The identification and evaluation of mRNA and protein targets associated with mRNP complexes and implicated in the expression of

L10 ANSWER 4 OF 11 USPATFULL on STN

proteins involved in common physiological pathways is described. Effective targets are useful for treating a disease, condition or disorder associated with the physiological pathway.

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2003:207181 USPATFULL
ΤI
       Gene expression profiling of primary breast carcinomas using arrays of
       candidate genes
IN
       Bertucci, Francois, Marseille, FRANCE
       Houlgatte, Remi, Marseille, FRANCE
       Birnbaum, Daniel, Marseille, FRANCE
       Nguyen, Catherine, Marseille, FRANCE
       Viens, Patrice, Marseille, FRANCE
       Fert, Vincent, Allauch, FRANCE
PΙ
       US 2003143539
                         A1
                               20030731
       US 2001-7926
AΙ
                         A1
                               20011207 (10)
PRAI
       US 2000-254090P
                         20001208 (60)
DT
       Utility
FS
       APPLICATION
LREP
       Schnader Harrison Segal & Lewis, IP Department, 36th Floor, 1600 Market
       Street, Philadelphia, PA, 19103
CLMN
       Number of Claims: 69
ECL
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 3630
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A polynucleotide library useful in the molecular characterization of a
       carcinoma, the library including a pool of polynucleotide sequences or
       subsequences thereof wherein the sequences or subsequences are
       overexpressed in tumor cells, further wherein the sequences or
       subsequences correspond substantially to any of the polynucleotide
       sequences set forth in any of SEQ ID NOS: 1-468 or the complement
       thereof.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L10 ANSWER 5 OF 11 USPATFULL on STN
ΑN
       2002:280059 USPATFULL
TΙ
       Methods and arrays for detecting biological molecules
       Wang, Yingjian, Worcester, MA, UNITED STATES
IN
PΙ
       US 2002155493
                          Α1
                               20021024
AΙ
       US 2002-173991
                         A1
                               20020618 (10)
       Continuation-in-part of Ser. No. US 2001-767538, filed on 23 Jan 2001,
RLI
       PENDING
PRAI
       US 2001-326311P
                           20011001 (60)
       US 2000-177590P
                           20000124 (60)
DТ
       Utility
FS
       APPLICATION
LREP
       Jenifer E. Haeckl, Esq., Mirick, O'Connell, DeMallie & Lougee, LLP, 1700
       West Park Drive, Westborough, MA, 01581
CLMN
       Number of Claims: 53
ECL
       Exemplary Claim: 1
       4 Drawing Page(s)
LN.CNT 1151
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Arrays and methods for detecting one or more biological molecules, where
AB
       the methods generally comprise the steps of: providing a first support
       immobilized with one or more reagents; providing a second support
       immobilized with one or more of ligands; contacting the reagents
       immobilized to the first support with the ligands immobilized on the
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second support whereby one or more of the reagents bind to one or more

of the ligands; and separating the first support from the second support so that one or more of the bound reagents remain bound to one or more ligands on the second support after separation.

In one preferred method, proteins are immobilized on a support with adequate strength so that the proteins can be dissociated from the support under certain conditions, such as after binding with other proteins immobilized on another support. For example, antibody arrays produced according to the present invention may be used to detect protein expressions in a protein lysate and may be used in immunostaining to reveal the presence and location of proteins in cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L10 ANSWER 6 OF 11 USPATFULL on STN
ΔN
       2002:262198 USPATFULL
ΤI
       Methods for drug target screening
IN
       Friend, Stephen H., Seattle, WA, United States
       Hartwell, Leland, Seattle, WA, United States
PA
       Fred Hutchinson Cancer Research Center, Seattle, WA, United States (U.S.
       corporation)
PΙ
       US 6461807
                          В1
                               20021008
AΙ
       US 2000-709671
                               20001110 (9)
       Division of Ser. No. US 1998-31216, filed on 26 Feb 1998, now patented,
RLI
       Pat. No. US 6165709
PRAT
       US 1997-39134P
                        19970228 (60)
                        19970820 (60)
       US 1997-56109P
DТ
       Utility
FS
       GRANTED
      Primary Examiner: Yucel, Remy; Assistant Examiner: Katcheves,
EXNAM
       Konstantina
LREP
       Pennie & Edmonds LLP
CLMN
       Number of Claims: 36
ECL
       Exemplary Claim: 1
DRWN
       21 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 4018
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The present invention provides methods for identifying targets of a drug
       in a cell by comparing (i) the effects of the drug on a wild-type cell,
       (ii) the effects on a wild-type cell of modifications to a putative
       target of the drug, and (iii) the effects of the drug on a wild-type
       cell which has had the putative target modified of the drug. In various
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embodiments, the effects on the cell can be determined by measuring gene expression, protein abundances, protein activities, or a combination of such measurements. In various embodiments, modifications to a putative target in the cell can be made by modifications to the genes encoding the target, modification to abundances of RNAs encoding the target, modifications to abundances of target proteins, or modifications to activities of the target proteins. The present invention also provides methods for drug development based on the methods for identifying drug

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

targets.

```
ANSWER 7 OF 11 USPATFULL on STN
L10
       2002:92232 USPATFULL
AN
       METHODS FOR POLYMORPHISM IDENTIFCATION AND PROFILING
ΊI
IN
       LIPSHUTZ, ROBERT J., PALO ALTO, CA, UNITED STATES
       FODOR, STEPHEN, PALO ALTO, CA, UNITED STATES
       US 2002048749
ΡI
                        A1 20020425
AΙ
      US 1998-60922
                         A1
                              19980415 (9)
DT
      Utility
```

FS APPLICATION LREP TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834 CLMN Number of Claims: 29 ECLExemplary Claim: 1 DRWN No Drawings LN.CNT 1031 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The invention provides methods of using probe arrays for polymorphism identification and profiling. Such methods entail constructing a first array of probes that span and are complementary to one or more known DNA sequences. This array is hybridized with nucleic acid samples from different individuals to identify a collection of polymorphisms. A second array is then constructed to determine a polymorphic profile of an individual at the collection of polymorphic sites. The polymorphic profile is useful for, e.g., genetic mapping, epidemiology, diagnosis and forensics. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L10 ANSWER 8 OF 11 USPATFULL on STN AN 2002:75200 USPATFULL TI Method to detect gene polymorphisms and monitor allelic expression employing a probe array IN Chee, Mark, Del Mar, CA, United States Affymetrix, Inc., Santa Clara, CA, United States (U.S. corporation) PAPΙ US 6368799 B1 20020409 WO 9856954 19981217 US 2000-445734 AΙ 20000314 (9) WO 1998-US12442 19980611 20000314 PCT 371 date PRAI US 1997-49612P 19970613 (60) DTUtility FSGRANTED EXNAM Primary Examiner: Siew, Jeffrey LREP Townsend and Townsend and Crew LLP CLMN Number of Claims: 11 ECL Exemplary Claim: 1 DRWN 0 Drawing Figure(s); 0 Drawing Page(s) LN.CNT 669 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The invention provides methods of monitoring expression levels of AB different polymorphic forms of a gene. Such methods entail analyzing genomic DNA from an individual to determine the presence of heterozygous polymorphic forms at a polymorphic site within a transcribed sequence of a gene of interest. RNA from a tissue of the individual in which the gene is expressed is then analyzed to determine relative proportions of polymorphic forms in transcript of the gene. Having identified alleles of a gene that are expressed at different levels, the alleles can be further analyzed to locate a second polymorphism that has a causative role in the different expression levels. The methods are amenable to analyzing large collections of genes simultaneously using arrays of immobilized probes.

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L10 ANSWER 9 OF 11 USPATFULL ON STN
AN 2001:233617 USPATFULL
TI PLURAL BIOLOGICAL SAMPLE ARRAYS, AND PREPARATION AND USES THEREOF
IN KREEK, MARY JEANNE, NEW YORK, NY, United States
LAFORGE, KARL STEVEN, NEW YORK, NY, United States
SPANGLER, RUDOLPH, NEW YORK, NY, United States
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09567863
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PΙ
        US 2001053849
                          A1
                                20011220
 ΑI
        US 1999-334113
                           A1
                                19990616 (9)
DT
       Utility
 FS
       APPLICATION
 LREP
       DAVID A JACKSON ESQ, KLAUBER & JACKSON, 411 HACKENSACK AVENUE,
       HACKENSACK, NJ, 07601
 CLMN
       Number of Claims: 4
ECL
       Exemplary Claim: 1
DRWN
       8 Drawing Page(s)
LN.CNT 1671
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates to the high throughput analysis of
       polymorphisms of a family of genes associated with addiction and alcohol
       dependence. Included are probes prepared by a variety of techniques, a
       sample plate that may utilize DNA chip-type technology. The invention is
       adapted to identify both physiological and genetic conditions of
       subjects so tested, and should provide a rapid and inexpensive means for
       accomplishing the same.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L10 ANSWER 10 OF 11 USPATFULL on STN
       2001:71303 USPATFULL
AN
ΤI
       Monitoring of gene expression by detecting hybridization to
       nucleic acid arrays using anti-heteronucleic acid antibodies
IN
       Linsley, Peter S., Seattle, WA, United States
       Baeuerle, Patrick, Gauting, Germany, Federal Republic of
PA
       Rosetta Inpharmatics, Inc., Kirkland, WA, United States (U.S.
       corporation)
       Tularik Inc., South San Francisco, CA, United States (U.S. corporation)
РΤ
       US 6232068
                         В1
                               20010515
       US 1999-236139
ΑI
                                19990122 (9)
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Campbell, Eggerton A.
LREP
       Pennie & Edmonds LLP
CLMN
       Number of Claims: 98
ECL
       Exemplary Claim: 1
       3 Drawing Figure(s); 3 Drawing Page(s)
DRWN
LN.CNT 1701
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention relates to anti-heteronucleic acid antibodies and
AB
       their uses for detection of RNA-DNA duplexes on arrays. The invention
       provides a method for detection of total cellular RNA
       hybridization on microarrays, thus obviating the need for
       isolation of the poly(A).sup.+ fraction.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L10 ANSWER 11 OF 11 USPATFULL on STN
AN
       2000:174338 USPATFULL
TT
       Methods for drug target screening
       Friend, Stephen H., Seattle, WA, United States
IN
       Hartwell, Leland, Seattle, WA, United States
       Fred Hutchinson Cancer Research Center, Seattle, WA, United States (U.S.
PA
       corporation)
PI
       US 6165709
                               20001226
ΑI
       US 1998-31216
                               19980226 (9)
PRAI
       US 1997-39134P
                           19970228 (60)
       US 1997-56109P
                           19970820 (60)
DΤ
       Utility
FS
       Granted
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EXNAM Primary Examiner: Yucel, Remy; Assistant Examiner: Gansheroff, Lisa

LREP Pennie & Edmonds LLP CLMN Number of Claims: 41 ECL Exemplary Claim: 1

DRWN 21 Drawing Figure(s); 8 Drawing Page(s)

LN.CNT 4056

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides methods for identifying targets of a drug in a cell by comparing (i) the effects of the drug on a wild-type cell, (ii) the effects on a wild-type cell of modifications to a putative target of the drug, and (iii) the effects of the drug on a wild-type cell which has had the putative target modified of the drug. In various embodiments, the effects on the cell can be determined by measuring gene expression, protein abundances, protein activities, or a combination of such measurements. In various embodiments, modifications to a putative target in the cell can be made by modifications to the genes encoding the target, modification to abundances of RNAs encoding the target, modifications to abundances of target proteins, or modifications to activities of the target proteins. The present invention also provides methods for drug development based on the methods for identifying drug targets.

=> d his

(FILE 'HOME' ENTERED AT 10:52:49 ON 10 DEC 2003)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 10:53:09 ON 10 DEC 2003 L12973 S SURFACE PLASMON RESONANCE AND RNA L2254 S L1 AND RNA PROBE? 10 S L2 AND RNA (4A) ARRAY? Ь3 L49 S L3 AND MRNA L_5 9 S L4 AND CDNA L6 9 DUP REM L5 (0 DUPLICATES REMOVED) 28 S RNA (2A) PROBES (3A) ARRAY? L7L827 S L7 AND HYBRIDIZATION 24 DUP REM L8 (3 DUPLICATES REMOVED) L9 L10 11 S L9 AND MRNA

=>